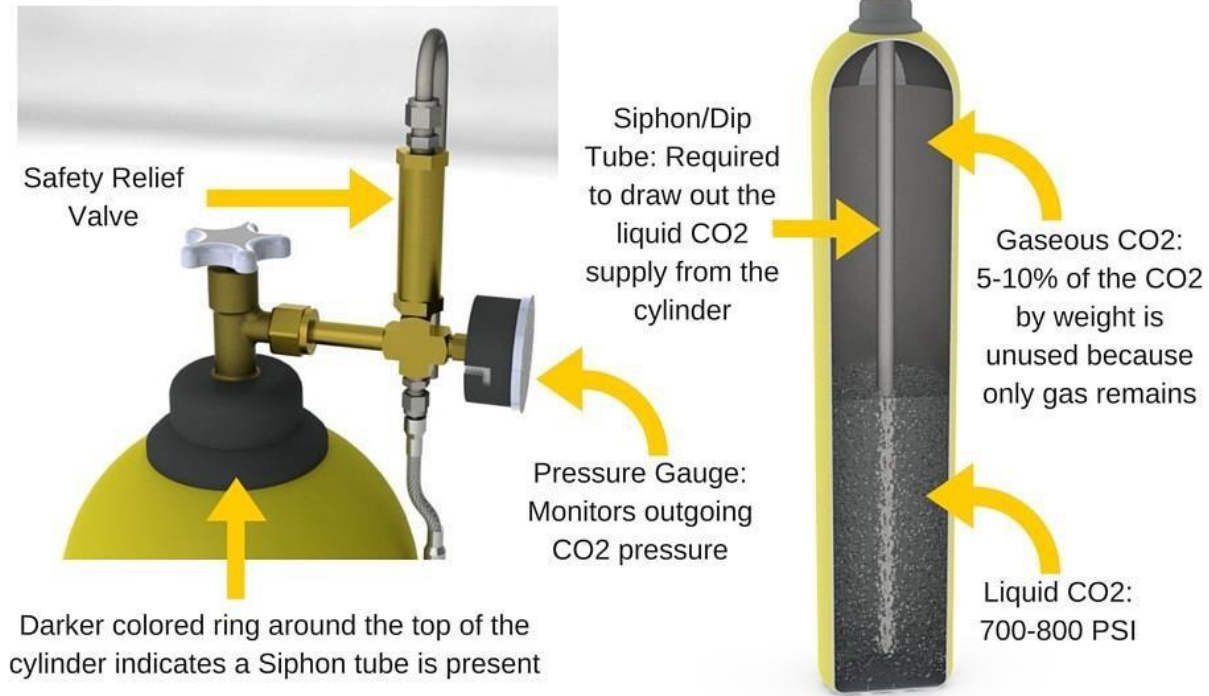


FACILITIES SET-UP

Liquid CO₂ Setup

CO₂ Cylinder with Siphon Tube:

Bottle Connection Kit:



[Exemplary LCO₂ Cylinders from Gas supplier]

Supplier: Airgas

Part Number: CD50 S / Industrial Grade Carbon Dioxide, Size 50 Pound Cylinder with Siphon Tube

Part Number: CD 50C62 / Carbon Dioxide 50LBS 6PK Size 200 CGA-320 (on a cradle)

[Compressed Air]

80-120 PSI @ 5-10 SCFM with a shop supply of Clean Dry Air or Nitrogen is required to operate the PSVP-Cleaning Module and Recharger. If using a cylinder of regulated Nitrogen gas, an in-line heater is required.

[Power]

SYSTEM AND OPERATIONAL SAFETY

Read and understand the safety precautions given in the Material Safety Data Sheet (MSDS) for handling and using liquid and solid carbon dioxide, provided by your propellant gas and liquid carbon dioxide supplier.

[Instruction Manual]

Follow all instructions for using the Clean Imagineering Spray Rental Systems given in this operation and maintenance manual.

The Clean Imagineering Spray Rental Systems spray a high pressure stream of propellant and micronized CO₂ particles. This means that cold and heat burns and impact and inhalation injuries can result if used improperly.

[Applicators, Substrates, and Exhaust]

The Clean Imagineering Spray Rental Systems are designed for dual purpose precision cleaning and machining applications. The CO₂ Composite Spray™ applicators must be securely mounted to a rigid surface or to a robot arm. Similarly, substrates being processed must be securely fastened to a fixture to prevent flight during the application of the energetic cleaning spray. Finally, a local exhaust system is recommended to evacuate and filter removed contamination and residual spray gases from the vicinity of the precision cleaning operation.

[Skin and Eye Contact]

Never touch the end of the applicator directly to the skin (or eyes) and never block the opening of the propellant nozzle with any object, especially your hands and fingers. Doing so can result in a cold injury, heat injury, or impact injury.

[Depressurization]

It is good practice to shut off the liquid CO₂ supply to the Clean Imagineering Spray Rental Systems for overnight shutdown and extended non-use.

[Ventilation]

Always ventilate the Clean Imagineering Spray Rental Systems work area to remove the buildup of carbon dioxide gas. Never use the Clean Imagineering Spray Rental Systems in a confined space or without proper ventilation as a build-up of carbon dioxide will displace breathing air, causing headache, dizziness, or induce unconsciousness.

[Hearing Protection]

The Clean Imagineering Spray Rental Systems can generate a high level of noise during spray cleaning operations. Appropriate hearing protection should be used.

[Confined Space and CO₂ Monitor]

A confined space is an enclosed area with limited volume and accessibility. An example is the interior of a storage tank, which may be occasionally entered by workers for maintenance but is otherwise not a habitable space. Another example is a small room with inadequate ventilation. In both examples, a large and sudden release of carbon dioxide gas due to a ruptured supply hose or fluid connection, or even a slow leak over a longer period of time, pose a health hazard. Poorly ventilated confined spaces will accumulate CO₂ gas!

Do not operate the Clean Imagineering Spray Rental Systems or CO₂ Composite Spray™ applicators within a confined space without proper ventilation and personal protection, for example a portable CO₂ gas monitor with an audible alarm. Exhaust equipment and CO₂ gas monitors are available from many industrial equipment suppliers, and are available as an optional equipment accessories from Clean Imagineering.